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MEMORANDUM.

Paris, Jan. 16, 1930.

Mr. Appleget has requested a statement giving the outlines of the problem of resident fellowships in Europe and in other subjects than the medical sciences. In the same connection, Dr. Pearce has written that the leading question bearing upon a resident fellowship program, which AG proposed for Germany, is whether the Paris office wishes to recommend a resident fellowship program for Europe. It is clear from TBA's letter that New York wishes us to give our opinion on the advisability of resident fellowships in Europe as a possible part of the programs of the RF.

What is meant by a resident fellowship program? I take it that this term means the possibility of making, with the approval of New York in each instance, a number of arrangements between the RF and a professor or researcher of exceptional ability and importance (and with the knowledge and permission of the Ministry of Public Instruction) by which the RF would promise aid over a 7-10 years' period, not to exceed \$5,000 annually, and often less than this amount, to be spent in stipends and scientific material for younger men of the same country, selected by the professor and approved by the RF.

I do not believe a decision can be taken without re-examination of the more general policy. It would appear that the RF has a choice between two general courses of action: furthering knowledge through the studies and practices of our own staff working on specific problems in different countries (e.g. yellow fever, malaria, etc.) or aid to individuals outside the Foundation's personnel who, by their positions, talents and interests seem best qualified themselves to advance knowledge in their respective fields. In case the RF favours the idea of an operative organization, the major decisions would be taken in New York, and the Paris office would naturally become an administrative organization only. In case the other policy is accepted of selecting individuals who, we hope, will be able to advance knowledge by means of our help, the Paris office must be prepared to attach importance to the opinion of those through whom it hopes to work. It must be prepared also to ask from New York for more freedom and, with it, more responsibility in recommendation of ways of finding and aiding the most valuable individuals. I must bear witness to the fact that in the minds of all the professors and scientists in Europe with whom I have discussed the matter, the recruitment of scientific personnel is at once the most important and the most neglected phase in the maintenance and development of the medical sciences. This opinion is of importance if it is the policy of the RF to advance knowledge through individuals outside its own personnel.

The ultimate question is not whether resident fellowships are useful or not. I take it as certain that so clear-cut a contribution to the number and quality of scientific workers is desirable, both directly and, also, indirectly in that it enlarges the number of candidates from which future leaders can be selected, and the likelihood of finding orig-

inal minds. The ultimate question is whether the RF policy can wisely exclude any contributions to resident fellowships in the belief that aid for buildings, equipment, literature, support of established advanced workers and foreign fellowships, meets adequately the major needs of science in Europe.

Resident fellowships in the medical sciences, or their equivalent, have given satisfaction in Italy, France, Ireland and Germany. Their continuance is requested eagerly in the same countries; the better the investigator - the more importance he attaches to this type of aid. In countries where we have no resident fellowships or their equivalent, it is questionable whether foreign fellowships are not being requested for men who could derive great benefit at home and at much less expense. Resident fellowships constitute the means best adapted to those European countries which possess a few exceptional investigators, but no opportunities for maintaining places for younger workers. In the medical sciences, I should consider Jugoslavia, Bulgaria, the Baltic countries, Iceland and probably Finland and Roumania, as countries in which at the present time no argument could be advanced for resident fellowships. Selection made with extreme caution would, however, very greatly reduce the apparently large field in the rest of Europe where resident fellowships would be applicable. The most effective easily purchasable instrument for the advancement of knowledge is the abundant supply and sustained activity of promising younger scientists.

The defects or disadvantages of a resident fellowship program are

principally that, if it is to be effective, it must be a long term operation in force for 7-10 years. It also seems difficult at the present time to provide for termination of such aid except by the death or retirement of the chief of the institute involved. I would, however, suggest that the adoption of a reasonably long period of cooperation would make it for the first time possible to have an absolute and clear understanding that the term of assistance is non-renewable, whereas at present, with the 3-5 year clause, such an understanding would destroy the effectiveness of any such aid.

I should consider any science, in any country, to be in a satisfactory condition, when

- 1) Men of superior intelligence, well provided with facilities for work, devote their time intensively to science and are well enough recompensed to live decently and educate their children;
- 2) Young men, without other resources than superior intelligence, are able to prepare themselves for the desirable posts implied in Paragraph 1), in large enough numbers so that a true selection can be made for the best posts, and the subordinate positions can be competently filled;
- 3) The science in question is itself undergoing a real development, thus offering an intellectual interest and/or value to society.

I should advocate recognition of the principle of resident fellowships because of the importance of Paragraph 2), and the marked inadequacy under otherwise favourable circumstances of places permitting the training and selection of younger scientists in Europe.